India: Conflict over Natural Resources.
A Study on Jharbadhali Micro Watershed
in Odisha

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Abstract. *In India, especially in rural areas, people mainly depend on natural resources for the livelihood. Due to the immense importance of natural resources, the potential to create conflict among the resource users exist. The term 'watershed project' has initiated for the conservation of natural resources such as land and water. In the case of Watershed Development Programme (WSDP), the conflict is found to be relevant as it has a number of stakeholders. The conflict occurs because of unequal sharing of resources and the inability of Planning Implementing Agency (PIA) to establish the 'resource use agreement' among the users. Under the above background, the present study is carried out at Jharbadhali micro watershed, located at Balangir district of western Odisha. The specific objective of the present study is to find out the causes of the conflict and involved mechanisms in the conflict resolution process. The sociological methods, like the case study, unstructured interview schedule and Focus Group Discussions (FGDs), have been used to fulfil the objectives of the study. The analysis of data reveals that the intervention of new institution in the form of the watershed project has disturbed the traditional mechanism of resource management and the cause and process of conflict resolution have become more complex.*

Keywords: *Conflicts, Natural Resources, Jharbadhali Micro Watershed.*

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Introduction

Natural resources are essential for the existence of human society. These resources can be categorised as water, land, air and forest. Natural resources form a base for

the livelihood to the millions of the population. The importance of natural resources has given rise to conflicts in many parts of the world (Ghee & Valencia, 1990). In some cases, natural resources give rise to the intrastate conflicts. As a result, both national and international organisation has taken the initiative to resolve the conflicts. It has become a matter of concern in natural resource-rich countries (Annegret, Miriam & George, 2011). More often, natural resources are held responsible for conflict between the resource users. Natural resources contribute significantly to the economic growth of developing country like India. In India, especially in rural areas, people mainly depend on natural resources for the livelihood. The government of India has implemented watershed projects in a massive manner to conserve the natural resources. Watershed is an attractive unit for technical intervention to manage water and land resources.

The studies conducted by different governments, NGOs and researchers have assessed the impact of watershed programmes on the livelihoods and in most of the cases, they have found positive results. The watershed project has a significant impact on the agricultural and non-agricultural incomes, employment, forestry, cropping pattern and productivity of different crops. It adopts the most suitable land planning and agricultural practices that improve soil moisture, reduce soil erosion and improve agricultural productivity through crop diversification. The watershed project reduces the soil erosion, increases the level of surface and ground water, increased water resources lead to good agricultural productivity and helps in debt reduction, also improves the yield growth rate and crop intensity (Farrington, Turton, & James, 1999; Bhattacahrya, 2008). The watershed resources (water, land and forest) are trans-boundary resources in nature and they are shared by a number of users. Consequently, it creates conflicts. The conflict occurs because of unequal sharing of resources and the inability of Planning Implementing Agency (PIA) to establish the resource use agreement among the users. The concept of conflict refers to a disagreement between two individuals or institutions or groups. The chances of conflict are more when two related parties are divided by incompatible interests or goals or fall in a state of competition for the control of scarce resources. While discussing culture and conflict, Avruch differentiates conflict from dispute and concludes that "Conflict refers to some fundamental incompatibility in the very structure of a relationship and dispute refers to a particular episodic manifestation of a conflict. A dispute is a social activation "that occurs when at least one party goes public with the conflict, brings it to the attention of others in the group or community or decides to act on it" (Avruch, 1998).

In the case of natural resource management, the conflict of interest arises between the users and non-users. Different degrees of access to resources are often a cause of conflict among its users (Stanbury & Lynott, 1992). These resources could be agricultural lands, water, and common grazing land and forests resources. Both users and non-users prefer to manage these resources in their way. The disagreements and incompatibility among two or more groups in using and managing these natural resources are an inevi-

table phenomenon in all human societies. Since the implementation of natural resource management programs (NRMP), the intensity of conflict has increased over the time. Further, the conflict among the user groups affects the level of participation and sustainability of the livelihood. Due to the relevance of conflict in general and in the area of NRMP in particular, identification of the sources and causes of conflict is essential for prioritizing the same. Accordingly, an understanding of the historical and cultural background and the duration of the conflict is necessary (Hasnain & Hasnain, 2006).

Conflict is generated by multiple groups who claim to own natural resources (Baviskar, 2003). Tania (2003), in her study in Indonesia, found that, after the fall of Suharto regime in 1998, resource conflicts have generally been classified into two categories: 1) vertical conflicts that arose between rural people and the state or state-sponsored corporations; and 2) horizontal conflicts that took place between one social, ethnic or religious group against another. Differences arise because different stakeholders have different needs and perceptions. In this situation, the failure to arrive at a decision that meets the needs of all stakeholders generates conflict. For instance, to avoid conflict in the case of watershed project management, male preferences with respect to the use of water for irrigation need to be compatible with female concerns for use of water for domestic use and other purposes. Concerning the watershed development program, understanding conflict is necessary to run the project smoothly. Conflicts in watershed programs may occur at different levels, they may take place between the Watershed Committee (WC) and the User Groups (UGs), the WC and the Self-help Groups (SHGs), the SHGs and the UGs. Sometimes it may also arise within Watershed Association (because it is heterogeneous entity) or between farmers and the PIA for the selection of a site of watershed physical structures or among watershed secretary, presidents and UGs. Conflict may also occur between landholders and landless and between the farmers having land on upper reach and lower reach farmers. The mechanisms adopted to resolve these conflicts involved both formal and informal systems.

The formal methods include local courts while in informal methods a negotiation was done by mediators, mostly by the elderly members of the village. It was observed that the conflicts arose due to some factors like: lack of planning of management of watershed resources without the consultation of the local community, limited involvement of people in the watershed project, the institutional arrangements, lack of awareness and lack of coordination between the PIA and user groups. Other factors of conflict include week monitoring and evaluating procedures, unequal distribution of watershed resources and the ineffective role of the village council in resolving the conflicts. On the other hand, it was observed that the chances of conflict are less due to some elements of gender, class and age as they restrict the violent attitudes of certain groups and individuals.

It is observed that women groups avoid expressing their grievances because of fear, lack of trust and social pressure. The poor and women feel marginalized and face economic

constraints and they are mostly excluded from decision-making procedures in the conflict resolution process. The elderly too are less likely to involve in a conflict because of their physical constraints. In the present paper, an attempt is made to understand causes of conflicts associated with the sharing of watershed resources and involved mechanism in the conflict resolution process. The study also analyses the traditional and modern patterns of conflict resolution process in the watershed program. The first section of the paper gives the description of the traditional conflict resolution process. The second section explains the case studies of conflicts found in the real field conditions. The third section concludes the paper.

Methodology

The present study is based on the empirical data collected from Jharbandhali micro watershed, Agalpur Block of Bolangir district in Odisha. Methods such as case studies, interview and participant observation of everyday life and practices of the villagers have been taken into consideration. Both qualitative and quantitative data were collected from each household using the household schedules. The secondary data was collected from the NGOs records, Gram Panchayat (GP) office, District Rural Development Agency (DRDA), Government reports, available literature and reports of Project Implementing Agency (PIA).

Location and People

Bolangir district in Odisha is situated between 23º30'16" to 23º38'36" North latitude and 83º13'26" to 83º19'30" East longitude in West Central Agro-climatic Zone. The Jharbandhali micro watershed comes under Western Orissa Rural Livelihood Project (WORLP) scheme and Sabuja Viplav, NGO acted as a Project Implementing Agency (PIA). The project was implemented in the year 2003-04 and handed over to the community in the year 2010. Total geographical area of the studied watershed is 606.62 hectare and the total treatable area is 528 hectares (ha). Under treatable area, the total arable land is 318.12 hectare; out of this upland, medium land and lowland consists of 67.56 hectares, 55.98 hectares and 69.49 hectares respectively. Total cultivable waste land is 55.76 hectares and grazing (gochar) land is 56.46 hectare, respectively. This watershed characterized by erratic rainfall, inequitable social structures, distorted land distribution, indebtedness, gender and other inequalities. Agalpur block is situated about the 27-kilometre distance from district headquarter. Total households residing in this watershed is 167, all the households have taken as the universe of the study.

Multi-ethnic groups are living in this watershed area. The ethnic group are Scheduled Caste (SCs), Scheduled Tribes (STs), Other Backward Community (OBCs) and General castes. The watershed village is mainly dominated by the OBC households because of its numerical strength and they are well off in comparison to other castes or communities. Agriculture is the main source of livelihood for SCs and STs communities; they also

work as agricultural labours. The OBC households derive their livelihood both from the agricultural and non-agricultural (petty business, service sector, etc.) practices. The general castes are mostly rich households and they are engaged in the service sector. Most of the farmers belong to the semi-medium and medium farmers are OBCs and GC communities.

Methods of data analysis

The data collected from both primary and secondary sources. The data is analysed by using the quantitative and qualitative methods. The quantitative data is organised and classified. The analysis is presented in the form of tables and percentages. The qualitative data analysis took place with the help of the field notes, case studies, observation, interview, documentation, conceptualization and information gathered from the beneficiaries and watershed officials, etc. Map 1 shows the location of Jharbandhali micro watershed.

Aims and objective of the study

The main objective of the present study is to explore the relationship between use of watershed resources and conflict among different stakeholders. In the process of study, an attempt is made to illustrate the conflicts that influence the watershed project implementation. In the course of the analysis, the traditional way of conflict resolution and frequency of conflict has discussed in different phases of watershed project implementation. The specific objective of the research is as follows;

To find out the causes of conflict and involved mechanism in the conflict resolution process.
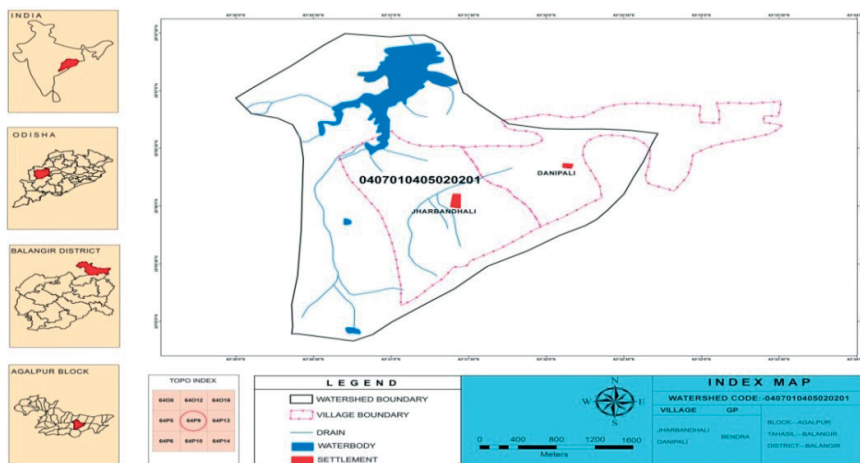
Map 1. Location of the Jharbandhali micro watershed

Source: Planning implementing agency of Jharbadhali micro watershed

I

Traditional Conflict Resolution Approaches

It was observed that, traditionally, the conflicts over the use of natural resources were not frequent in the village. The social customs, values and norms were more effective, which helped in strengthening the social bonding among the villagers. The collective conscience among the villagers was higher, in the case of intra-community or intra-village conflict arose, it was resolved by the traditional village chief. The inter-village and inter-community conflicts were also resolved by the village chiefs and villages council members. As agriculture was a dominant source of livelihood in most of the cases, the reason for the conflict was confined to the water sharing of the village pond. Before the introduction of the watershed programme, the traditional village councils were playing an essential role in managing the water problems and conflicts. In a traditional society, if any conflict relating to the conservation of natural resources took place the community used to resolve it. If they failed to solve the disputes by themselves, they used to take the matter to the village chief. Village chief used to interfere only if the villagers approach him/her. After that, the traditional village council would resolve the conflict.

In case the dispute could not be resolved at the village level, it used to be referred to the next level of appeal, i.e., statutory *Panchayat*. If they were unable to resolve the problem, they approached the police and law courts. It was observed that the traditional village chief generally belonged to either the elite group or an upper caste group. All the villagers irrespective of their caste and community used to abide by the village chief's order. It was also observed that the most respectable caste group Brahmin community would also respect chief even if he belonged to a tribal community. The village chief was called '*Gauntiya*'. The villagers directly approached *Gauntiya* to register their complainant. *Gauntiya* was an elderly man of the village and he got the position of a village chief based on his ownership of land (medium farmers, who possessed land more than 20 acres) irrespective of his caste or community. The traditional leadership of *Gauntiya* was hereditary. *Gauntiya* used to instruct conflicting parties to inform the villagers regarding the place and time of the meeting in which their conflict has to be resolved. Generally, the meeting would be held in the evening as it was a convenient time for all the farmers. By evening all of them would get back from their agricultural fields. Sometimes the meeting used to run more than a day till the conflict got resolved. Usually, the meeting used to be held in the village *mandap* (stage). In case of rain, the meeting used to be shifted to the residence of *Gauntiya.* The conflicting parties usually took the responsibility of passing the information to all the villagers. On the day of the meeting, all the elders of the village used to gather at a specified place. The participation of women in the meeting was very low and even if they were present, their opinions were not taken into consideration. Women were called only if they were involved in the conflict or if they were the eyewitnesses. In the assembly, villagers were free to ask the questions to the conflicting parties.

The process was fairly democratic in nature. The village community's views were taken seriously in a traditional village council, before arriving at any judgment. The *Gauntiya* did not take the decision independently, but he involved other elders present at the meeting to analyse the dispute and to cross-examine the witnesses if necessary. The *Gauntiya* used to cross-examine the truthfulness of witnesses from many aspects. In this case, the witness might have to take an oath on his/her ancestors and it was considered to be taken seriously. The village elders had rights to question them regarding the causes of the dispute. Generally, they used to ask the time and place of conflict, the reason of their presence, the matter he/she saw, what they did. Depending on the nature and seriousness of the case the meeting was organized. In some cases, the problem was resolved during the first gathering of the villagers.

However, if it was not solved, then they called the meeting again and if the case was too complex, it used to take two or three meetings. After the examination of the facts and views of the witnesses, the village chief used to discuss all the dimensions of the case and based on the nature of the crime the penalties were announced. *Gauntiya* used to deliver the judgment and tell the culprit to pay the compensation in cash or in kind to the opposite party. The penalties were in the form of compensation, in the form of money or repairing anything that has been damaged. For example, if they broke the water harvesting structure or open well, they had to get it repaired by using their labour and money. If someone took more water from the village pond or littered on it, he/she had to organize a feast for all the village council members. There were some other forms of penalties also. For example, giving some bottles of local wine to the village council members and throwing a party. If the convicted party did not obey the judgment passed by the village council, the villagers socially and economically ostracized him/her. Table 1 shows the view of villagers about the causes and frequency of conflict in traditional society. It can be depicted from the table that the frequency of the conflict was very less. The chief reasons for less conflict were the sufficiency of natural resources, simple conflict resolution system and equal distribution of resources. The conflict for the water resources sharing used to take place at the time of drought and *Rabi* season cultivation. In both above mentioned periods, the scarcity of water took place. The majority of the farmers informed that most of the time conflict used to take place on the sharing of water. The frequency of conflict was twice in a year.

Table 1. Causes and frequency of conflict in traditional society (before watershed)

Causes of conflict	Frequency of conflict
Conflict over unequal water sharing	Twice in a year
Uses of forest resources	Once in a year
Uses of grazing land	No conflict
Uses of village common land	No conflict
Uses of other natural resources	Once in a year

Source: Field study

Table 2 indicates the frequency of conflict after the introduction of the watershed project. It is found that after watershed the conflict over the different natural resources has increased. Degradation of resources, industrialisation and increasing population are the main reasons attributed to it. It was observed that more often the conflict is taking place on the uses of water and forest resources. The conflict on water resources used to occur during *Kharif* and *Rabi* seasons. The term *Kharif* and *Rabi* seasons are derived from the Arabic language, the first refers to the autumn and second means spring. In Indian context, these two terms are used to divide the cropping seasons into two parts. *Kharif* cropping season starts from July-October during the south-west monsoon and *Rabi* cropping season starts from October-March. It was found that due to deforestation and increasing population the forest resources are becoming scarce, which results in conflict. The conflicts over the grazing land, village common land and other natural resources have also increased, comparatively.

Table 2. Causes and frequency of conflict after watershed project

Causes of conflict	Frequency of conflict
Conflict over unequal water sharing	Thrice in a year
Uses of forest resources	Thrice in a year
Uses of grazing land	Twice in a year
Uses of village common land	Once in a year
Uses of other natural resources	Twice in a year

Source: Field study

The next section of the paper will be discussing the case studies found during the field study. The case studies of the conflict have found between watershed beneficiaries and between PIA and beneficiaries.

II

Case I

In Jharbandhali micro watershed, fifty-year-old Teka Ghibhela and fifty-seven-year-old Dino Bhoi of the Danipali village had a conflict during the year 2000. This conflict was of an intra-village and inter-community in nature. While Teka Ghiblea belongs to the Gouda (OBC) community, Dino Bhoi is a Sahara (ST) farmer. Both of them own land near the *Ghaikhayi*canal that bypasses the Danipali village. Teka Ghiblea is a semi medium farmer owning more than five acres of land and Dino is a marginal farmer having less than 2.5 acres of land adjacent to the property of Teka. While Dino has his land in the lower region of that canal, Teka has land in the upper reach. Being a marginal farmer Dino was poor, agriculture was the only source of livelihood for him.

In the month of May-June, the water level in the canal was low and the monsoon was uncertain. Therefore, all the villagers and the elderly members and the *Gauntiya* had

appealed to all farmers to share the existing water equally. As there was no proper drainage system, the water has to pass through Teka's land to reach Dino's land. In this context, Dino requested Teka to release more water to his land but Teka refused and built a bund in drainage so that more water cannot flow from his land to Dino's land. Because of this, Dino could not get more water for irrigation. Teka also did not listen to the appeal of Dino's friends and relatives. Finally, Dino along with his relatives approached the village council and council chief *(Gauntiya).* After this, they arranged a meeting in the village for finding a solution by taking both the parties into consideration. In the meeting, the *Gauntiya* heard both the parties and also the witnesses from both the sides.

The *Gauntiya,* after consultation with the elders, arrived at a decision that Teka was found guilty of not allowing more water to Dino's land and he also put a barrier that prohibited the free flow of water. As a solution to this conflict, the village council members warned Teka not to repeat the mistake. After the meeting, Teka had to offer wine and meat to all villagers present at the meeting. Teka obliged by the decision of *Gauntiya.* The above case indicates that the traditional village chief had the power to resolve the conflicts. The power and authority that is vested with village chief promotes social solidarity and maintains the social order. The resolution of this conflict shows that the village chief took a fair decision and no discrimination was made on the basis of land-holdings size of the farmer. This shows that everyone is equal before the law.

Inter-village and inter-ethnic conflict

During the field study, it was observed that few cases that fell into the category of inter-village and inter-ethnic conflict were referred to outside the village Panchayat. In that meeting, the *Sarpanch* of the villages, conflicting parties, witnesses and elderly members or Ex-*Sarpanch* was used to be present. The following case studies from illustrate the conflict between two farmers belonging to two different villages.

Case II

In 1998, a conflict between two farmers belonged to two different villages was referred to *Sarpanch*. Conflict arose between Jharu Nag, a 55-year-old farmer of Danipali village and Manglu Sagar, a 48-year-old farmer of Jharbandhali village. They belonged to Gonda community and both of them were landless and used to cultivate the government forest land for nearly five years. As the land did not belong to them, a proper demarcation was not made by them. While Jharu's land is situated in an upper reach of the watershed area, Manglu's land is located in middle reach. Once Jharu had cut some trees and shrubs for selling and domestic use, which was nearer to the Manglu's land. On seeing the act of Jharu, Manglu abused him and also lodged a complaint with the village chief. After having a discussion in the meeting, *Gauntiya* (village chief) found both of them guilty as they had encroached upon the government land and fine was imposed on each of them.

Manglu accepted the judgment, but Jharu refused. He told that though the land was not his own, he had been cultivating it for five years, so he had rights over the trees. As the village council members failed to convince Jharu, they had no option but to refer this case to the *Sarpanch* of Bendra Panchayat. A Sarpanch is elected by all the villagers; he/she is the head of the grassroots level statutory institution of local self-government called as gram panchayat (village government).

After a few days, the *Sarpanch* called a meeting in which Manglu, Jharu and senior members from both Danipali and Jharbandhali village were present. After listening to both the parties their respective witnesses and also the village chiefs of both the villages, the *Sarpanch* imposed fine on both of them. Jharu was told to give some share of money to Manglu as he sold the trees while Manglu was told to offer some wine to villagers present at the meeting. Both of them accepted this judgment

After the introduction of the watershed program, the inter-village conflicts relating to agricultural irrigation, accessibility of common land and water bodies or intra-generational conflict for the construction of Water Harvesting Structure (WHS) on private land were mostly taken to the Planning Implementing Agency (PIA). With the implementation phases of the watershed project during 2004-2010 the conflicts were more over the sharing of water of percolation pond, use of forest land, grazing the land and other natural resources on common land. Planning Implementing Agency (PIA) did not define ownership of these resources to the user groups. After the implementation of watershed project villagers mainly approached the PIA for the conflict resolution. Watershed officials established a conflict resolution centre (*Samadhan Kendra*) in the village. But this institution did not sustain in the post-project period. Inter-village disputes or conflict may arise at the time of implementation of watershed if the people see that, adjoining village is getting more facilities for water conservation. Besides this conflict also occurs when people cross the boundary of one village to access the watershed resources, forest resources, and common land resources.

Case III

In 2006, the PIA officials of watershed organized a meeting in Danipali village. During the discussion over watershed works to be carried out, a group of people who were not satisfied with the works of PIA started abusing. Later on, the conflict arises between the villagers of Daniplai and Jharbandhali village. The officials of PIA failed to resolve this conflict that led to the breaking off communication between the two villages for a year. The implementation of the watershed project was stopped in the Danipali village in 2006 that runs only for two years (from 2004-05 to 2005-06). At the time of the interview with the beneficiaries, it was found that people did not approach the elder members and not even the *Sarpanch* and statuary *Panchayat* of the village to solve this problem. The respondents replied that they did not approach any other conflict resolu-

tion body as the matter was related to the implementation of the watershed project for which PIA is solely responsible.

Case IV

In 2006, a conflict arose between two brothers over the construction of farm pond on the private land. They were Khadi Pradhan, a 45-year-old farmer and Jibardhan Pradhan, a 32-year-old farmer. After the implementation of the watershed, they got back their mortgage land. The PIA helped them financially to get it back. Both of them were marginal farmers and were belonged to the Dumal community. While Khadi Pradhan's land is situated in the upper reach of the watershed, Jibardhan Pradhan's land is located in the lower reach. The construction of field bunding took place on the high land. The land was not divided between two brothers. It was still in the name of their father (Arjun Pradhan, 60-year-old). But the real land owner (Arjun Pradhan) had agreed to get it registered in the land of his younger son (Jibardhan Pradhan). Field bunding started on their land before the cultivation. When field bunding was in progress on the land of Jibardhan Pradhan at that time Khadi Pradhan started abusing him. Khadi Pradhan wanted the field bunding on his land. Later on both of them (Khadi and Jibardhan), started fighting with each other. Looking into the situation the PIA stopped the construction work and asked them to compromise. However, both of them did not agree for any compensation or agreement. PIA tried to solve this matter but failed to satisfy both the parties. After this incident both of them approached the *Sarpanch* of Salebhata *Panchayat* to intervene in this matter without consulting the village chief. They narrated the incident to the *Sarpanch* in the *Gram Sabha* meeting. After discussing the issue in the *Gram Sabha* meeting*,* the village *Sarpanch* called a meeting at *Panchayat* office at Bendra, where elder members of *Gram Sabha* were invited. After hearing the point of view of both the parties and their respective witnesses, *Sarpanch* requested them to compromise but they did not. *Sarpanch* postponed this matter for one month, which did not bring any solution. Therefore, *Sarpanch* instructed both the parties to meet the PIA as this case was related to the watershed project. They approached PIA but PIA refused to intervene as the fund for construction of field bunding, and implementation phase of the watershed was over. At the end, none of them got the field bunding on their land. The above case shows the inability of PIA to resolve the conflict.

Grass-root level institutions and PIA's role in conflict resolution

Before the introduction of the watershed project, people were mostly dependent on informal institutions (village chief and elderly members of the village) for the conflict resolution. After watershed project they are dependent on watershed officials for conflict resolution. However, it was not mentioned in the watershed guideline (2001) that PIA has to resolve the conflict but PIA has given the responsibility for the smooth func-

tioning of the watershed project in a particular area. The case study discussed below will reflect at what level the PIA was able to resolve the conflicts among the beneficiaries.

Case V

A conflict took place between PIA officials and watershed beneficiary in 2005. Baru Sagar, a 60-year-old marginal farmer of Jharbadhali village had a conflict with watershed officials. He belonged to Gonda community and he had three sons named Shushil Sagar (40 years aged), Kausal Sagar (35 years aged) and Rudra Sagar (32 years aged). Agriculture and daily wage labour were their main occupation. During the implementation of the watershed, they got a farm pond *(Chahala).* When they were digging a pit, a big stone hampered farm pond work. Baru drew the attention of PIA officials about this matter. However, his grievance was not responded positively. PIA official asked them to contribute some money so that re-digging could have been possible, but they were not financially sound to contribute the money. Once when the PIA officials were constructing farm pond on someone's land, Baru went there and shouted at them. However, it was only verbal abuse. Baru did not approach any of the conflict resolution body before approaching PIA officials. On the other hand, PIA was unable to deal with the conflicts with the farmers but they did not approach any elder members of the village for mediating in the matter. The PIA did not follow the traditional local socio-cultural approach for dispute management. Further, it discourages people's faith in their created conflict resolution institutions. It also created a situation for the watershed beneficiary regarding whom they should approach for the conflict resolution if once PIA withdraws from the watershed area.

Socio-cultural aspects of conflict and watershed development programme

It came into notice that the conflict was not only confined to the sharing of watershed resources but also related to the social relations. And sometimes the social conflict got diverted to sharing of watershed resources. It was found that most of the inter-caste conflicts arose and symbolically they reflected in day to day social interactions in watershed activities. Some of the conflicts are infused in the caste differences and they got manifested into a conflict of watershed resources sharing.

Conflict over leadership

At the village level, many grass-root level institutions were created such as Self Help Groups (SHGs), *Kisan Mitra* (farmer's friend), *Gram Sabha,* Statutory *Panchayat* and watershed committee. Most often conflicting situations arise when the leaders of some institutions come together for a particular meeting with selfish interest. At the time of the creation of different committees of watershed, it was observed that the leaders of various institutions contested for the post of president and watershed secretary. During the discussion with the contesting candidates, it was found that most of them

wanted to occupy the positions of president and secretary for monetary grants and the power associated with the positions so that they could help their friends and relatives to construct the water harvesting structures easily. The *Sarpanch* of the village played a significant role in the selection or nomination of the name of the watershed president or secretary. It was observed that watershed president and the secretary cannot win or cannot do their work without any political support. Local level political interference sometimes disturbs decision-making power of the watershed president and leaders. Individual and community interests over the use of resources along with ethnic differences have made the situation more and more complex and conflict oriented. For some beneficiary watershed project created opportunities to avail the water and other natural resources but for fewer groups it deprived them of achieving their interests.

Conclusion

From the above analysis, it is clear that before the introduction of the Watershed Development Programs (WSDP), the conflicts over natural resources use were very rare. The conflict resolution was not a very complicated process and the traditional village chief used to resolve the disputes with the help of the village elders. The nature of penalty was dependent on the paying ability of the conflicting parties. If the culprit was able to pay money, he had to pay or else he had to put in his labour to get the things repaired. Sometimes he or she was warned by the village chief not to repeat his/her mistakes in future.

The people used to respect their traditional culture and village chief. The next conflict resolution body after the village chief was the village *Sarpanch* and if the traditional village council failed to solve the case it is resolved by the *Sarpanch* of statutory Panchayat. The cases hardly went to the third level i.e. police station. The introduction of WSDP made the situation little complicated. The Project Implementing Agency (PIA) was primarily responsible for resolving any problem related to the watershed resources use. In the case of a conflict regarding the watershed resource use, people approached the PIA first to address their grievances rather than traditional village chief. Few of the farmers believed that their proximity to the watershed officials might fetch them extra benefits in terms of watershed assets and financial help.

Some of the villagers went to the PIA frequently in a hope of getting some permanent employment. It was also found that the introduction of WSDP has created a competition for the use of natural resources. It brought significant changes in conflict resolution system. Before the introduction of the watershed project, the causes of conflicts were lesser or it was only confined to the overuse of forest resources. But after the introduction of the watershed project various dimensions of the conflict has emerged. People competed for the use of more natural resources of village common land at the cost of others and individuals and also struggled for the private ownership of few of common

property resources. Fighting for leadership, money, profit-making attitude and fight for the construction of water harvesting structures has increased the tension in watershed villages. The causes of conflicts were found to be similar in most of the cases. However, in all the cases, the PIA failed to resolve the conflict completely. Besides the inability of the PIA to resolve the conflict, the lack of adjustment of the new institution with the traditional one has also created a problem in the process of conflict resolution. The ideology that beneficiaries should control their watershed resources and run the program smoothly with the collaboration of external agency is yet to be realized.

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